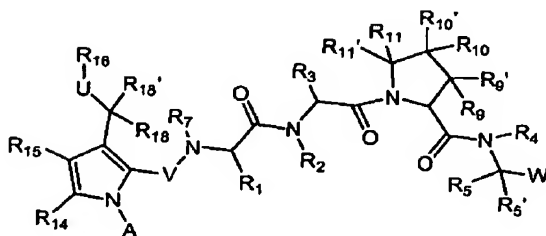


IN THE CLAIMS:

Please amend claims 1-63 as follows:

1. (original) A compound of formula I:



I

or a pharmaceutically acceptable salt thereof,  
wherein:

R<sub>9</sub> and R<sub>9'</sub> are each independently:

- hydrogen-,
- (C1-C12)-aliphatic-,
- (C3-C10)-cycloalkyl- or -cycloalkenyl-,
- [(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-aliphatic-,
- (C6-C10)-aryl-,
- (C6-C10)-aryl-(C1-C12)aliphatic-,
- (C3-C10)-heterocyclyl-,
- (C3-C10)-heterocyclyl-(C1-C12)aliphatic-,
- (C5-C10)-heteroaryl-, or
- (C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to three aliphatic carbon atoms in each of R<sub>9</sub> and R<sub>9'</sub> are optionally replaced by O, N, NH, S, SO, or SO<sub>2</sub> in a chemically stable arrangement;

wherein each of R<sub>9</sub> and R<sub>9'</sub> is independently and optionally substituted with up to 3 substituents independently selected from J;

J is halogen, -OR', -NO<sub>2</sub>, -CN, -CF<sub>3</sub>, -OCF<sub>3</sub>, -R', oxo, thioxo, =N(R'), =N(OR'), 1,2-methylenedioxy, 1,2-ethylenedioxy, -N(R')<sub>2</sub>, -SR', -SOR', -SO<sub>2</sub>R', -SO<sub>2</sub>N(R')<sub>2</sub>, -SO<sub>3</sub>R', -C(O)R', -C(O)C(O)R', -C(O)C(O)OR', -C(O)C(O)N(R')<sub>2</sub>, -C(O)CH<sub>2</sub>C(O)R', -C(S)R', -C(S)OR', -C(O)OR', -OC(O)R', -C(O)N(R')<sub>2</sub>, -OC(O)N(R')<sub>2</sub>, -C(S)N(R')<sub>2</sub>, -(CH<sub>2</sub>)<sub>0-2</sub>NHC(O)R', -N(R')N(R')COR', -N(R')N(R')C(O)OR', -N(R')N(R')CON(R')<sub>2</sub>, -N(R')SO<sub>2</sub>R', -N(R')SO<sub>2</sub>N(R')<sub>2</sub>, -N(R')C(O)OR', -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')<sub>2</sub>, -N(R')C(S)N(R')<sub>2</sub>, -N(COR')COR', -N(OR')R', -C(=NH)N(R')<sub>2</sub>, -C(O)N(OR')R', -C(=NOR')R', -OP(O)(OR')<sub>2</sub>, -P(O)(R')<sub>2</sub>, -P(O)(OR')<sub>2</sub>, or -P(O)(H)(OR'); wherein;

each R' is independently selected from:

hydrogen-,  
 (C1-C12)-aliphatic-,  
 (C3-C10)-cycloalkyl- or -cycloalkenyl-,  
 [(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-aliphatic-,  
 (C6-C10)-aryl-,  
 (C6-C10)-aryl-(C1-C12)aliphatic-,  
 (C3-C10)-heterocyclyl-,  
 (C3-C10)-heterocyclyl-(C1-C12)aliphatic-,  
 (C5-C10)-heteroaryl-, and  
 (C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to 5 atoms in R' are optionally and independently substituted with J;

wherein two R' groups bound to the same atom optionally form a 5- to 6-membered aromatic or a 3- to 7-membered saturated or partially unsaturated ring system having up to 3 heteroatoms independently selected from N, NH, O, S, SO, and SO<sub>2</sub>, wherein said ring is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or a

(C3-C10)heterocyclyl, wherein any ring has up to 3 substituents selected independently from J;  
R<sub>10</sub>, R<sub>10'</sub>, R<sub>11</sub>, and R<sub>11'</sub> are each independently:  
hydrogen-,  
(C1-C12)-aliphatic-,  
(C3-C10)-cycloalkyl- or -cycloalkenyl-,  
[(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-aliphatic-,  
(C6-C10)-aryl-,  
(C6-C10)-aryl-(C1-C12)aliphatic-,  
(C3-C10)-heterocyclyl-,  
(C3-C10)-heterocyclyl-(C1-C12)aliphatic-,  
(C5-C10)-heteroaryl-, or  
(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;  
wherein any ring is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or (C3-C10)heterocyclyl;  
wherein up to 3 aliphatic carbon atoms in each of R<sub>10</sub>, R<sub>10'</sub>, R<sub>11</sub>, and R<sub>11'</sub> are optionally replaced by a heteroatom selected from O, NH, S, SO, or SO<sub>2</sub> in a chemically stable arrangement;  
wherein each of R<sub>10</sub>, R<sub>10'</sub>, R<sub>11</sub>, and R<sub>11'</sub> is independently and optionally substituted with up to 3 substituents independently selected from J; or  
R<sub>10</sub> is -OR' and R<sub>10'</sub> is H; or  
R<sub>10</sub> and R<sub>10'</sub> are both -OR' or -SR'; or  
R<sub>10</sub> and R<sub>10'</sub> are both fluorine; or  
R<sub>10</sub> and R<sub>10'</sub> are optionally taken together with the carbon atom to which they are bound to form a 5- to 7-membered saturated or partially unsaturated ring system;  
wherein the R<sub>10</sub> and R<sub>10'</sub> atoms bound to the carbon atom are independently C(H), N, NH, O, S, SO, or SO<sub>2</sub>;

wherein said ring optionally contains up to 4 heteroatoms independently selected from N, NH, O, S, SO, and SO<sub>2</sub>;

wherein any atom is optionally singly or multiply substituted with up to 2 substituents selected independently from J; and

wherein said ring is optionally fused to a second ring selected from (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, and a (C3-C10)heterocyclyl, wherein said second ring has up to 3 substituents selected independently from J; or

R<sub>9</sub> and R<sub>10</sub> are optionally taken together with the ring atoms to which they are bound to form a 5- to 6-membered aromatic or a 3- to 7-membered saturated or partially unsaturated ring system up to 3 heteroatoms independently selected from N, NH, O, S, SO, or SO<sub>2</sub>; wherein said ring system is optionally substituted with up to 3 substituents selected independently from J; or

R<sub>10</sub> and R<sub>11</sub> are optionally taken together with the ring atoms to which they are bound to form a 5- to 6-membered aromatic or a 3- to 7-membered saturated or partially unsaturated ring system having up to 3 heteroatoms independently selected from N, NH, O, S, SO, or SO<sub>2</sub>; wherein said ring is optionally substituted with up to 3 substituents selected independently from J; or

R<sub>9</sub> and R<sub>11</sub> are optionally taken together with the ring atoms to which they are bound to form a bridged bicyclic saturated or partially unsaturated carbocyclic or heterocyclic ring system containing up to 10 atoms; wherein said ring system is optionally substituted with up to 3 substituents selected independently from J; wherein each heteroatom in the heterocyclic ring system is selected from the group consisting of N, NH, O, S, SO, or SO<sub>2</sub>;

R<sub>1</sub> and R<sub>3</sub> are each independently:

(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-,

[(C3-C10)-cycloalkyl- or -cycloalkenyl]-(C1-C12)-  
aliphatic-,

(C6-C10)-aryl-(C1-C12)aliphatic-, or

(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to 3 aliphatic carbon atoms in each of R<sub>1</sub>  
and R<sub>3</sub> are optionally replaced by a heteroatom selected  
from O, N, NH, S, SO, or SO<sub>2</sub> in a chemically stable  
arrangement;

wherein each of R<sub>1</sub> and R<sub>3</sub> is independently and  
optionally substituted with up to 3 substituents  
independently selected from J;

R<sub>2</sub>, R<sub>4</sub>, and R<sub>7</sub> are each independently:

hydrogen-,

(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl-(C1-C12)-aliphatic-, or

(C6-C10)-aryl-(C1-C12)-aliphatic-;

wherein up to two aliphatic carbon atoms in each of R<sub>2</sub>,  
R<sub>4</sub>, and R<sub>7</sub> are optionally replaced by a heteroatom  
selected from O, N, NH, S, SO, and SO<sub>2</sub> in a chemically  
stable arrangement;

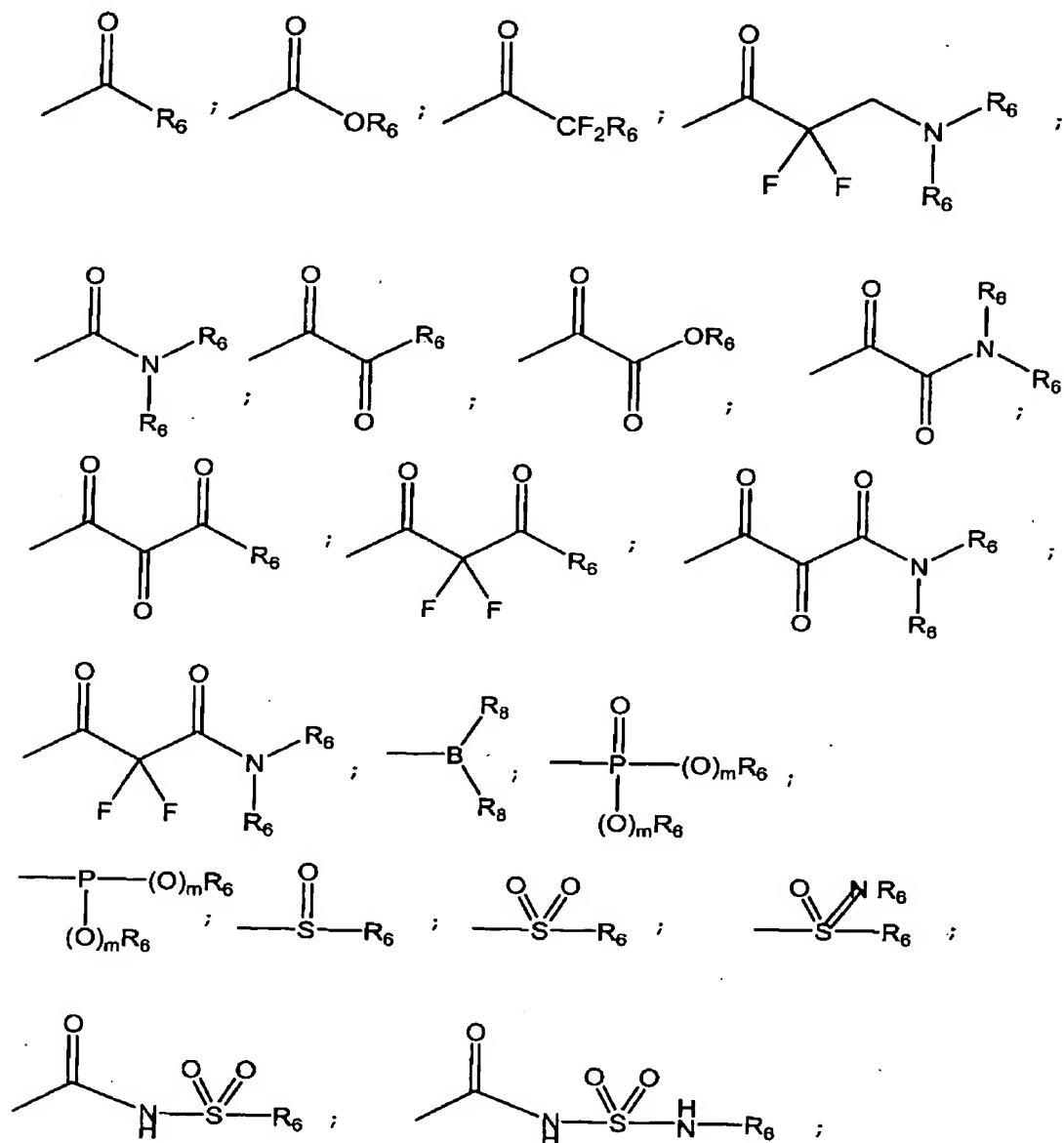
wherein each of R<sub>2</sub>, R<sub>4</sub>, and R<sub>7</sub> is optionally substituted  
with up to 3 substituents independently selected from J;

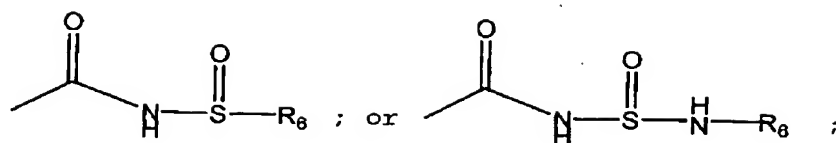
R<sub>5</sub> and R<sub>5'</sub> are each independently hydrogen or (C1-C12)-  
aliphatic, wherein any hydrogen is optionally replaced  
with halogen; wherein any terminal carbon atom of R<sub>5</sub> is  
optionally substituted with sulfhydryl or hydroxy; or R<sub>5</sub>  
is Ph or -CH<sub>2</sub>Ph and R<sub>5'</sub> is H, wherein said Ph or -CH<sub>2</sub>Ph  
group is optionally substituted with up to 3 substituents  
independently selected from J; or

R<sub>5</sub> and R<sub>5'</sub> together with the atom to which they are bound  
optionally form a 3- to 6-membered saturated or partially

unsaturated ring having up to 2 heteroatoms selected from N, NH, O, SO, and SO<sub>2</sub>; wherein said ring is optionally substituted with up to 2 substituents selected independently from J;

W is:





wherein m is 0 or 1;

wherein each  $R_6$  is independently:

hydrogen-,

(C1-C12)-aliphatic-,

(C6-C10)-aryl-,

(C6-C10)-aryl-(C1-C12)aliphatic-,

(C3-C10)-cycloalkyl- or cycloalkenyl-,

[(C3-C10)-cycloalkyl- or cycloalkenyl]-(C1-C12)-aliphatic-,

(C3-C10)-heterocyclyl-,

(C3-C10)-heterocyclyl-(C1-C12)-aliphatic-,

(C5-C10)-heteroaryl-, or

(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to 3 aliphatic carbon atoms in each  $R_6$  is optionally replaced by a heteroatom selected from O, NH, S, SO, or SO<sub>2</sub> in a chemically stable arrangement;

wherein  $R_6$  is optionally substituted with up to 3 J substituents; or

two  $R_6$  groups, together with the nitrogen atom to which they are bound, optionally form a 5- to 6-membered aromatic or a 3- to 7-membered saturated or partially unsaturated ring system having up to 3 heteroatoms independently selected from N, NH, O, S, SO, and SO<sub>2</sub>, wherein said ring is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or a (C3-C10)heterocyclyl, wherein any ring has up to 3 substituents selected independently from J;

wherein each  $R_8$  is independently -OR'; or the  $R_8$  groups together with the boron atom, is a (C3-C10)-membered heterocyclic ring having in addition to the boron up to 3

additional heteroatoms selected from N, NR', O, SO, and SO<sub>2</sub>;

V is -C(O)-, -C(S)-, -S(O)-, or -S(O)<sub>2</sub>-;

A is hydrogen or -C(R<sub>12</sub>)(R<sub>12'</sub>)-T-R<sub>13</sub>;

T is oxygen or a bond;

R<sub>12</sub> and R<sub>12'</sub> are each independently:

hydrogen-, or

(C1-C6)-aliphatic-;

wherein up to two aliphatic carbon atoms in each of R<sub>12</sub> and R<sub>12'</sub> are optionally replaced by a heteroatom selected from O, N, NH, S, SO, and SO<sub>2</sub> in a chemically stable arrangement; or

R<sub>12</sub> is absent and R<sub>12'</sub> is =O;

R<sub>13</sub> is -C(O)R', -P(O)(OR')<sub>2</sub>, -SO<sub>3</sub>R', -R', or R<sub>19</sub>;

R<sub>19</sub> is:

hydrogen,

(C1-C12)-aliphatic-,

(C6-C10)-aryl-(C1-C12)aliphatic-, or

(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to 3 aliphatic carbon atoms in each R<sub>19</sub> is optionally replaced by a heteroatom selected from O, NR<sub>19</sub>, S, SO, or SO<sub>2</sub> in a chemically stable arrangement;

wherein up to 3 aliphatic carbon atoms in each R<sub>19</sub> is optionally replaced with -C(O)-;

wherein R<sub>19</sub> is optionally substituted with up to 3 J substituents;

wherein any NR<sub>19</sub>, taken together with the nitrogen and a carbon adjacent to the nitrogen, optionally forms a 5- to 7-membered ring system, wherein said ring system optionally contains up to three additional heteroatoms selected from O, N, NH, S, SO, and SO<sub>2</sub> in a chemically stable arrangement;

R<sub>14</sub> and R<sub>15</sub> are independently halogen, -OR', -OC(O)N(R')<sub>2</sub>, -NO<sub>2</sub>, -CN, -CF<sub>3</sub>, -OCF<sub>3</sub>, -R', 1,2-methylenedioxy, 1,2-



ethylenedioxy,  $-N(R')_2$ ,  $-SR'$ ,  $-SOR'$ ,  $-SO_2R'$ ,  $-SO_2N(R')_2$ ,  
 $-SO_3R'$ ,  $-C(O)R'$ ,  $-C(O)C(O)R'$ ,  $-C(O)CH_2C(O)R'$ ,  $-C(S)R'$ ,  
 $-C(O)OR'$ ,  $-OC(O)R'$ ,  $-C(O)N(R')_2$ ,  $-OC(O)N(R')_2$ ,  
 $-C(S)N(R')_2$ , or  $-(CH_2)_{0-2}NHC(O)R'$ ;

$R_{16}$  is  $R'$ ,  $-C(O)R'$ ,  $-P(O)(OR')_2$ , or  $-SO_3R'$ ;

U is O, N, or a bond; and

$R_{18}$  and  $R_{18'}$  are optionally taken together with the carbon atom to which they are bound to form a 5- to 7-membered saturated or partially unsaturated ring system;

wherein the  $R_{18}$  and  $R_{18'}$  atoms bound to the carbon atom are independently O or N;

wherein said ring optionally contains up to 1 additional heteroatom selected from N, NH, O, S, SO, and  $SO_2$ ;

wherein any substitutable atom is optionally singly or multiply substituted with up to 2 substituents selected independently from J;

wherein said ring is optionally fused to a second ring selected from (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, and a (C3-C10)heterocyclyl, wherein said second ring has up to 3 substituents selected independently from J;

provided that when  $R_{18}$  and  $R_{18'}$  are optionally taken together with the carbon atom to which they are bound to form a 5- to 7-membered saturated or partially unsaturated ring system, then  $R_{16}$  is  $R'$ ; or

$R_{18'}$  is  $=O$ ,  $=CH_2$ ,  $=N(R')$ , or  $=N(OR')$  and  $R_{18}$  is absent,

provided that when  $R_{18}$  is absent and  $R_{18'}$  is  $=CH_2$ , then U is oxygen; and

provided that when  $R_{18}$  is absent and  $R_{18'}$  is  $=O$ ,  $=N(R')$  or  $=N(OR')$ , then U is a bond and  $R_{16}$  is  $R'$ .

2. (original) The compound according to claim 1, wherein V is  $-C(O)-$ .

3. (original) The compound according to claim 2, wherein:

A is  $-C(R_{12})(R_{12'})-T-R_{13}$ ;

$R_{12}$  and  $R_{12'}$  are both hydrogen;

T is oxygen;

$R_{13}$  is  $-C(O)R'$ ,  $-P(O)(OR')_2$ ,  $-SO_3R'$ , or  $-R'$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$ ;

$R_{18'}$  is  $=O$  and  $R_{18}$  is absent;

U is a bond; and

$R_{16}$  is  $R'$ , wherein  $R'$  is selected from:

(C1-C12)-aliphatic-,  
(C3-C10)-cycloalkyl- or -cycloalkenyl-,  
[(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-  
aliphatic-;

wherein up to 5 atoms in  $R'$  are optionally and independently substituted with J.

4. (original) The compound according to claim 3, wherein:

$R_{13}$  is  $-C(O)R'$ ,  $-P(O)(OR')_2$ , or  $-R'$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$  and  $R'$  is (C1-C12)-aliphatic-; and

$R_{16}$  is  $R'$ , wherein  $R'$  is (C1-C12)-aliphatic-.

5. (original) The compound according to claim 2, wherein:

A is  $-C(R_{12})(R_{12'})-T-R_{13}$ ;

$R_{12}$  is hydrogen and  $R_{12'}$  is (C1-C6)-aliphatic-;

wherein up to two aliphatic carbon atoms in  $R_{12'}$  are optionally replaced by a heteroatom selected from O, N, NH, S, SO, and  $SO_2$  in a chemically stable arrangement;

T is oxygen;

$R_{13}$  is  $-C(O)R'$ ,  $-P(O)(OR')_2$ ,  $-SO_3R'$ , or  $-R'$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$ ;

R<sub>18</sub> is =O and R<sub>18</sub> is absent;

U is a bond; and

R<sub>16</sub> is R', wherein R' is selected from:

(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-,

[(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-  
aliphatic-;

wherein up to 5 atoms in R' are optionally and  
independently substituted with J.

6. (original) The compound according to claim 5,  
wherein:

R<sub>13</sub> is -C(O)R', -P(O)(OR')<sub>2</sub>, or -R';

R<sub>14</sub> and R<sub>15</sub> are both -R' and R' is (C1-C12)-aliphatic-;

R<sub>16</sub> is R', wherein R' is (C1-C12)-aliphatic-;

7. (original) The compound according to claim 2,  
wherein:

A is -C(R<sub>12</sub>)(R<sub>12</sub>)-T-R<sub>13</sub>;

R<sub>12</sub> is absent and R<sub>12</sub> is =O;

T is oxygen or a bond;

R<sub>13</sub> is -R<sub>19</sub>;

R<sub>14</sub> and R<sub>15</sub> are both -R';

R<sub>18</sub> is =O and R<sub>18</sub> is absent;

U is a bond; and

R<sub>16</sub> is R', wherein R' is selected from:

(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-,

[(C3-C10)-cycloalkyl or -cycloalkenyl]-(C1-C12)-  
aliphatic-;

wherein up to 5 atoms in R' are optionally and  
independently substituted with J.

8. (original) The compound according to claim 2, wherein:

$R_{18'}$  is  $=CH_2$ , and  $R_{18}$  is absent;

U is oxygen;

$R_{16}$  is  $R'$ ,  $-C(O)R'$ ,  $-P(O)(OR')_2$ , or  $-SO_3R'$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$ ; and

A is hydrogen.

9. (original) The compound according to claim 8, wherein:

$R_{16}$  is  $R'$ ,  $-C(O)R'$ , or  $-P(O)(OR')_2$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$  and  $R'$  is (C1-C12)-aliphatic-.

10. (original) The compound according to claim 2, wherein:

$R_{18'}$  is  $=N(R')$  or  $=N(OR')$  and  $R_{18}$  is absent;

U is a bond;

$R_{16}$  is  $R'$ ;

$R_{14}$  and  $R_{15}$  are both  $-R'$ ; and

A is hydrogen.

11. (original) The compound according to claim 10, wherein:

$R_{14}$  and  $R_{15}$  are both  $-R'$  and  $R'$  is (C1-C12)-aliphatic-.

12. (original) The compound according to claim 2, wherein:

$R_{18}$  and  $R_{18'}$  are optionally taken together with the carbon atom to which they are bound to form a 5- to 7-membered saturated or partially unsaturated ring system;

wherein the  $R_{18}$  and  $R_{18'}$  atoms bound to the carbon atom are independently O or N;

wherein said ring optionally contains up to 1 additional heteroatom selected from N, NH, O, S, SO, and SO<sub>2</sub>;

wherein any substitutable atom is optionally singly or multiply substituted with up to 2 substituents selected independently from J;

wherein said ring is optionally fused to a second ring selected from (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, and a (C3-C10)heterocyclyl, wherein said second ring has up to 3 substituents selected independently from J;

U is a bond;

R<sub>16</sub> is R';

R<sub>14</sub> and R<sub>15</sub> are both -R'; and

A is hydrogen.

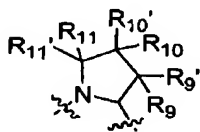
13. (original) The compound according to claim 12; wherein the R<sub>18</sub> and R<sub>18</sub>' atoms bound to the carbon atom are O;

wherein said ring optionally contains up to 1 additional oxygen atom.

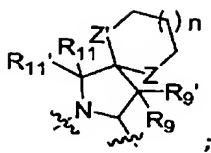
14. (original) The compound according to any one of claims 1-13, wherein R<sub>14</sub> and R<sub>15</sub> are both -R' and R' is (C1-C6)-aliphatic-.

15. (original) The compound according to claim 14, wherein R<sub>14</sub> and R<sub>15</sub> are both methyl.

16. (currently amended) The compound according to ~~any one of claims 1-15~~, wherein the



radical is:



wherein:

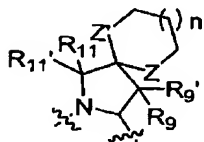
n is 0, 1, or 2;

Z and Z' are independently C(H), N, NH, O, or S;

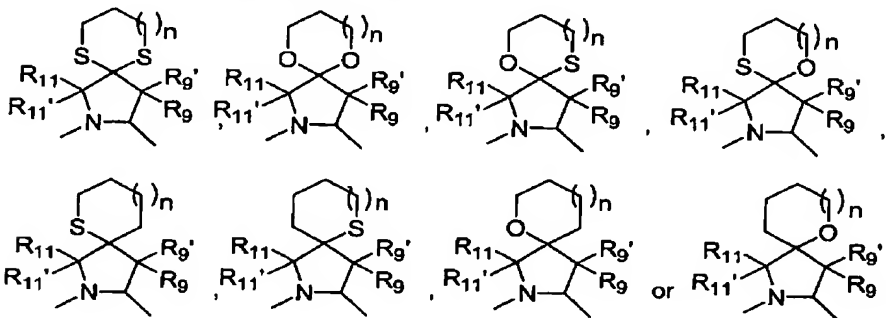
R<sub>9</sub>, R<sub>9'</sub>, R<sub>11</sub>, and R<sub>11'</sub> are as defined in claim 1; and

the spirocyclic ring containing Z and Z' is optionally substituted with up to 3 J substituents, wherein J is as defined in claim 1.

17. (original) The compound according to claim 16, wherein:



radical is:



wherein:

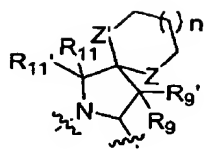
R<sub>11</sub> and R<sub>11'</sub> are both H;

n is 0, 1, or 2;

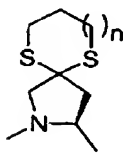
R<sub>9</sub> and R<sub>9'</sub> are as defined in claim 1; and

the spirocyclic ring containing Z and Z' is optionally substituted with up to 3 J substituents, wherein J is as defined in claim 1.

18. (original) The compound according to claim 17, wherein the



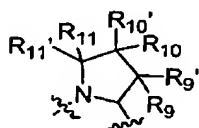
radical is:



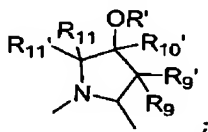
wherein:

n is 0 or 1.

19. (currently amended) The compound according to any one of claims 1-15, wherein the



radical is:



wherein:

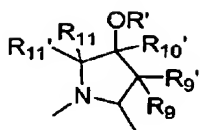
R<sub>9</sub>, R<sub>9'</sub>, R<sub>10'</sub>, R<sub>11</sub>, and R<sub>11'</sub> are as defined in claim 1;  
and

R' is:

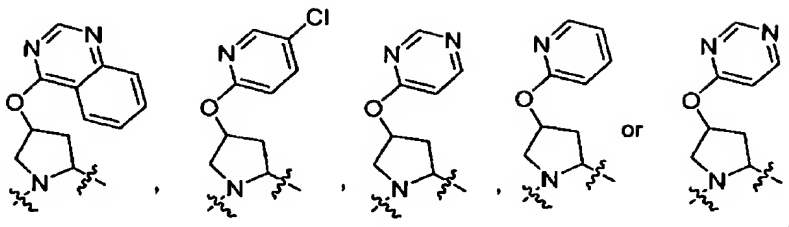
(C6-C10)-aryl-,  
(C6-C10)-aryl-(C1-C12)aliphatic-,  
(C3-C10)-heterocyclyl-,  
(C3-C10)-heterocyclyl-(C1-C12)aliphatic-,  
(C5-C10)-heteroaryl-, or  
(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

wherein up to 5 atoms in R' are optionally and independently substituted with J.

20. (original) The compound according to claim 19, wherein the

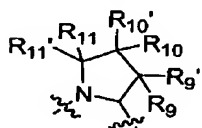


radical is:

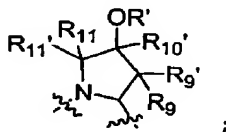


wherein the R' ring is optionally substituted with up to 5 substituents independently selected from J.

21. (currently amended) The compound according to ~~any one of~~ claims 1-15, wherein the



radical is:



wherein:

R<sub>9</sub>, R<sub>9'</sub>, R<sub>10'</sub>, R<sub>11</sub>, and R<sub>11'</sub> are as defined in claim 1;  
and

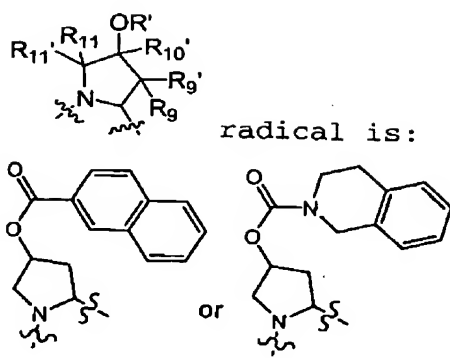
R' is selected from:

(C6-C10)-aryl-(C1-C12)aliphatic-,  
(C3-C10)-heterocyclyl-(C1-C12)aliphatic-, and  
(C5-C10)-heteroaryl-(C1-C12)-aliphatic-;

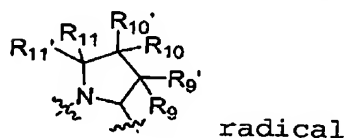
wherein up to 5 atoms in R' are optionally and independently substituted with J.

22. (original) The compound according to claim 21, wherein the





23. (currently amended) The compound according to ~~any~~ ~~one of~~ claims 1-15, wherein in the



$R_9$ ,  $R_{10}$ ,  $R_{10'}$ ,  $R_{11}$ , and  $R_{11'}$  are as defined in claim 1;  
and

$R_9$  is:

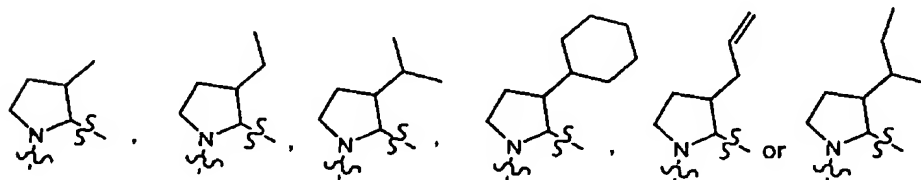
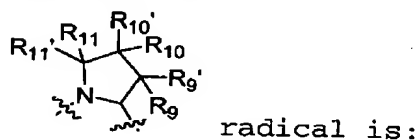
(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-;

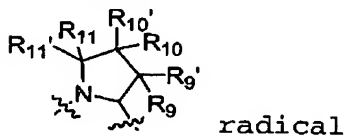
wherein up to three aliphatic carbon atoms in  $R_9$  may be replaced by O, N, NH, S, SO, or SO<sub>2</sub>; and

wherein  $R_9$  is independently and optionally substituted with up to 3 substituents independently selected from J.

24. (original) The compound according to claim 23, wherein the



25. (currently amended) The compound according to ~~any one of~~ claims 1-15, wherein in the



R<sub>9</sub>, R<sub>9'</sub>, R<sub>10</sub>, R<sub>10'</sub>, and R<sub>11</sub> are H; and

R<sub>11'</sub> is:

(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-,

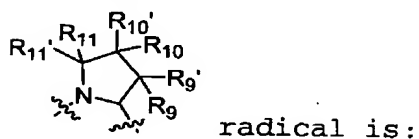
(C6-C10)-aryl-,

wherein any ring is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or (C3-C10)heterocyclyl;

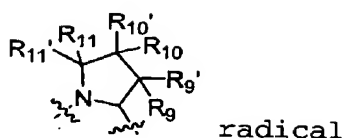
wherein up to 3 aliphatic carbon atoms in R<sub>11'</sub> may be replaced by a heteroatom selected from O, NH, S, SO, or SO<sub>2</sub> in a chemically stable arrangement;

wherein R<sub>11'</sub> is independently and optionally substituted with up to 3 substituents independently selected from J.

26. (currently amended) The compound according to claim 25, wherein the ~~formula I, the~~



27. (currently amended) The compound according to ~~any one of~~ claims 1-15, wherein in the



R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, and R<sub>11'</sub> are H; and

R<sub>9</sub>' and R<sub>10</sub>' are:

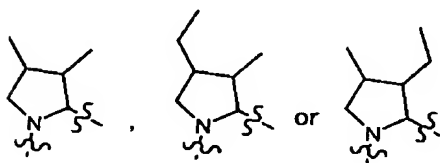
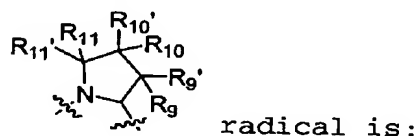
(C1-C12)-aliphatic-,

(C3-C10)-cycloalkyl- or -cycloalkenyl-,

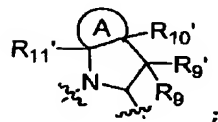
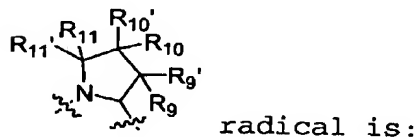
wherein up to 3 aliphatic carbon atoms in R<sub>9</sub>' and R<sub>10</sub>' may be replaced by a heteroatom selected from O, NH, S, SO, or SO<sub>2</sub> in a chemically stable arrangement; and

wherein R<sub>9</sub>' and R<sub>10</sub>' are independently and optionally substituted with up to 3 substituents independently selected from J.

28. (original) The compound according to claim 27, wherein the



29. (currently amended) The compound according to ~~any one of~~ claims 1-15, wherein the



wherein;

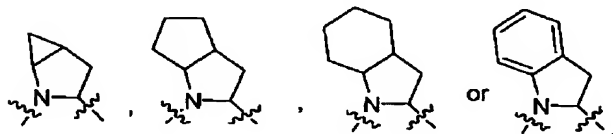
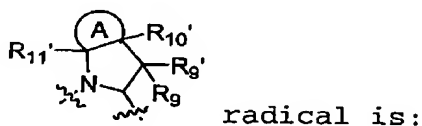
ring A is a 5- to 6-membered aromatic or a 3- to 7-membered non-aromatic ring system having up to 3 heteroatoms independently selected from N, NH, O, SO, or SO<sub>2</sub>;

wherein said ring A is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or (C3-C10)heterocyclyl;

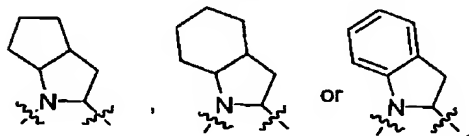
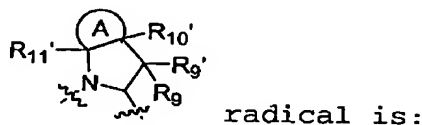
wherein any ring has up to 3 substituents selected independently from J; and

R<sub>9</sub>, R<sub>9'</sub>, R<sub>10'</sub>, and R<sub>11'</sub> are as defined in claim 1.

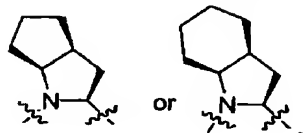
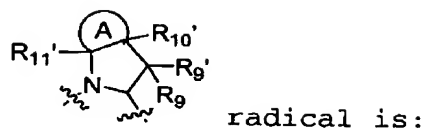
30. (original) The compound according to claim 29, wherein the



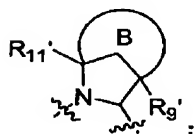
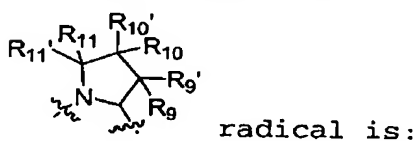
31. (original) The compound according to claim 30, wherein the



32. (original) The compound according to claim 31, wherein the



33. (currently amended) The compound according to ~~any one of~~ claims 1-15, wherein the



wherein:

ring B forms a 3- to a 20-membered carbocyclic or heterocyclic ring system;

wherein each ring B is either aromatic or nonaromatic;

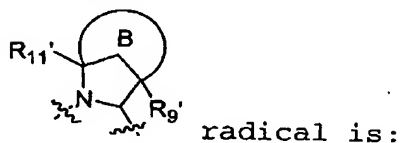
wherein each heteroatom in the heterocyclic ring system is N, NH, O, SO, or SO<sub>2</sub>;

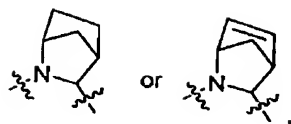
wherein ring B is optionally fused to a (C6-C10)aryl, (C5-C10)heteroaryl, (C3-C10)cycloalkyl, or (C3-C10)heterocyclyl;

wherein each ring has up to 3 substituents selected independently from J; and

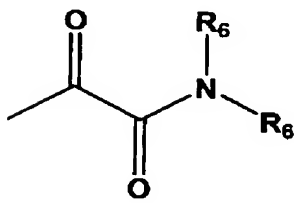
R<sub>9</sub>' and R<sub>11</sub>' are as defined in claim 1.

34. (original) The compound according to claim 33, wherein the



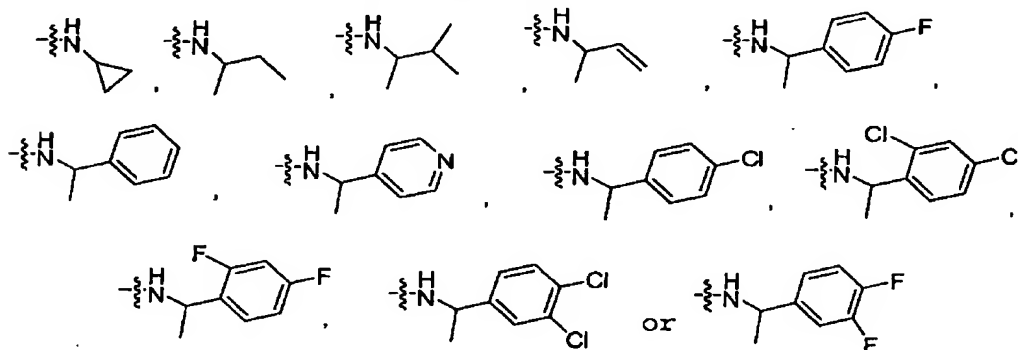


35. (currently amended) The compound according to ~~any one of claims 1-34~~, wherein W is:

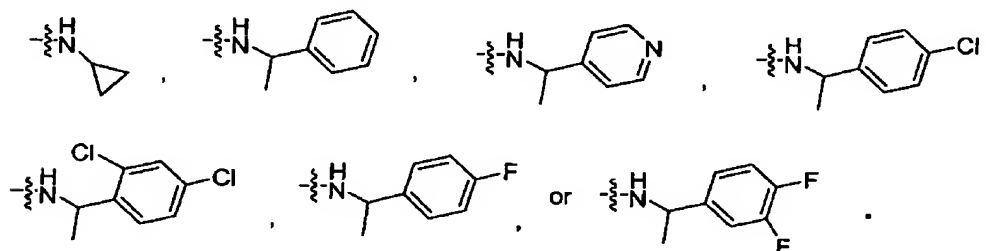


wherein in the W, the  $\text{NR}_6\text{R}_6$  is selected from  $-\text{NH}-(\text{C}1-\text{C}6 \text{ aliphatic})$ ,  $-\text{NH}-(\text{C}3-\text{C}6 \text{ cycloalkyl})$ ,  $-\text{NH}-\text{CH}(\text{CH}_3)-\text{aryl}$ , or  $-\text{NH}-\text{CH}(\text{CH}_3)-\text{heteroaryl}$ , wherein said aryl or said heteroaryl is optionally substituted with up to 3 halogens.

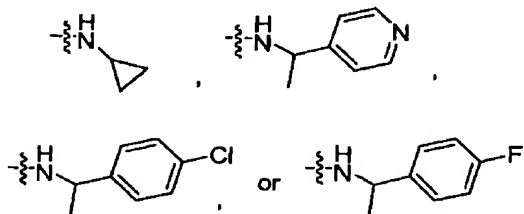
36. (original) The compound according to claim 35, wherein in the W, the  $\text{NR}_6\text{R}_6$  is:



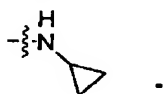
37. (original) The compound according to claim 36, wherein in the W, the  $\text{NR}_6\text{R}_6$  is:



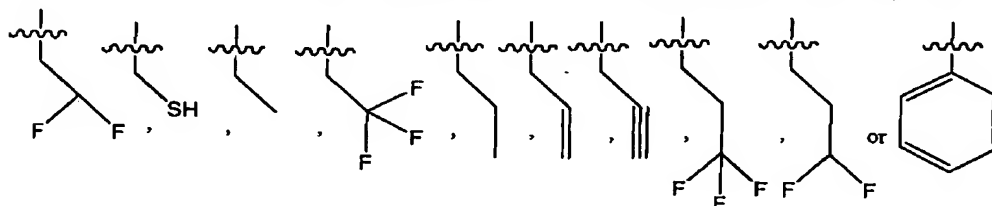
38. (original) The compound according to claim 37, wherein in the W, the  $\text{NR}_6\text{R}_6$  is:



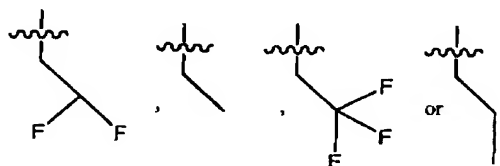
39. (original) The compound according to claim 38, wherein in the W, the  $\text{NR}_6\text{R}_6$  is:



40. (currently amended) The compound according to ~~any~~  
~~one of~~ claims 1-39, wherein R<sub>5</sub> is hydrogen and R<sub>5</sub> is:



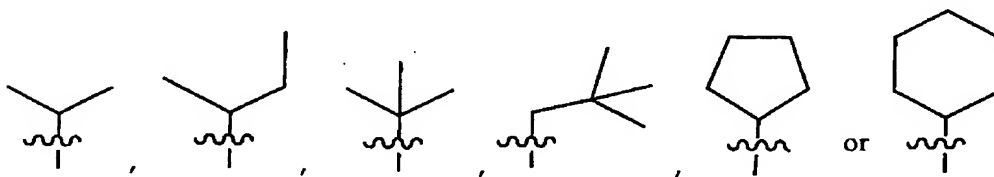
41. (original) The compound according to claim 40, wherein R<sub>5</sub> is hydrogen and R<sub>5</sub> is:



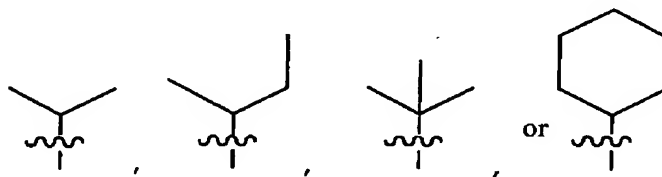
42. (currently amended) The compound according to ~~any~~  
~~one of~~ claims 1-41, wherein R<sub>2</sub>, R<sub>4</sub>, R<sub>7</sub>, and R<sub>12</sub>, are each  
independently H, methyl, ethyl, or propyl.

43. (original) The compound according to claim 42, wherein  $R_2$ ,  $R_4$ ,  $R_7$ , and  $R_{12}$  are each H.

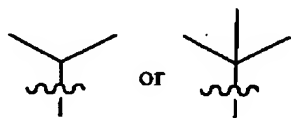
44. (currently amended) The compound according to ~~any one of~~ claims 1-43, wherein  $R_3$  is:



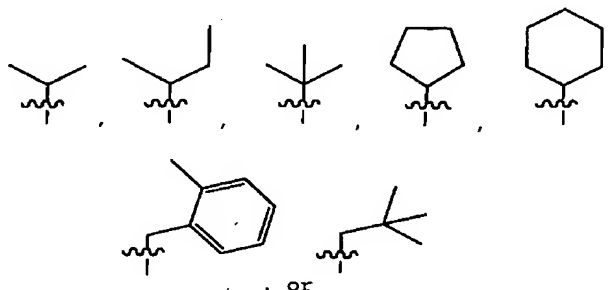
45. (original) The compound according to claim 44, wherein  $R_3$  is:



46. (original) The compound according to claim 45, wherein  $R^3$  is:

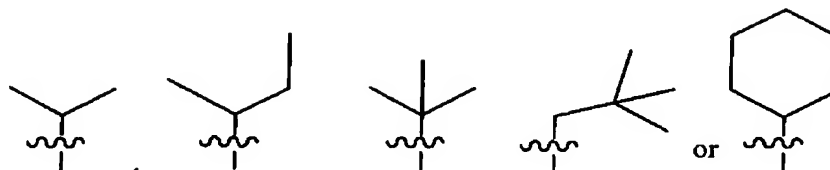


47. (currently amended) The compound according to ~~any one of~~ claims 1-46, wherein  $R^1$  is:





48. (original) The compound according to claim 47, wherein  $R_1$  is:



49. (original) The compound according to claim 48, wherein  $R_1$  is cyclohexyl.

50. (currently amended) A pharmaceutical composition comprising a compound according to ~~any one of~~ claims 1-49 or a pharmaceutically acceptable salt thereof in an amount effective to inhibit a serine protease; and a acceptable carrier, adjuvant or vehicle.

51. (original) The composition according to claim 50, wherein said composition is formulated for administration to a patient.

52. (original) The composition according to claim 51, wherein said composition comprises an additional agent selected from an immunomodulatory agent; an antiviral agent; a second inhibitor of HCV protease; an inhibitor of another target in the HCV life cycle; and a cytochrome P-450 inhibitor; or combinations thereof.

53. (original) The composition according to claim 50, wherein said immunomodulatory agent is  $\alpha$ -,  $\beta$ -, or  $\gamma$ -interferon or thymosin; said antiviral agent is ribavirin, amantadine, or telbivudine; or said inhibitor of another target in the HCV life cycle is an inhibitor of HCV helicase, polymerase, or metalloprotease.

54. (original) The composition according to claim 52, wherein said cytochrome P-450 inhibitor is ritonavir.

55. (currently amended) A method of inhibiting the activity of a serine protease comprising the step of contacting said serine protease with a compound according to ~~any one of claims 1-49.~~

56. (original) The method according to claim 55, wherein said serine protease is an HCV NS3 protease.

57. (original) A method of treating an HCV infection in a patient comprising the step of administering to said patient a composition according to claim 51.

58. (original) The method according to claim 57, comprising the additional step of administering to said patient an additional agent selected from an immunomodulatory agent; an antiviral agent; a second inhibitor of HCV protease; an inhibitor of another target in the HCV life cycle; or combinations thereof; wherein said additional agent is administered to said patient as part of said composition according to claim 51 or as a separate dosage form.

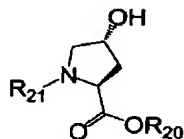
59. (original) The method according to claim 58, wherein said immunomodulatory agent is  $\alpha$ -,  $\beta$ -, or  $\gamma$ -interferon or thymosin; said antiviral agent is ribavirin or amantadine; or said inhibitor of another target in the HCV life cycle is an inhibitor of HCV helicase, polymerase, or metalloprotease.

60. (original) A method of eliminating or reducing HCV contamination of a biological sample or medical or laboratory equipment, comprising the step of contacting said biological sample or medical or laboratory equipment with a composition according to claim 50.

61. (original) The method according to claim 60, wherein said sample or equipment is selected from blood, other body fluids, biological tissue, a surgical instrument, a surgical garment, a laboratory instrument, a laboratory garment, a blood or other body fluid collection apparatus; a blood or other body fluid storage material.

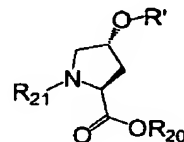
62. (original) The method according to claim 61, wherein said body fluid is blood.

63. (currently amended) A process for preparing a compound of formula I, ~~as defined in any one of claims 1-49,~~ comprising the step of: reacting a compound of formula VII in the presence of a compound of formula VIII to provide a compound of formula IX:



VII

R'X



IX

wherein:

R<sub>21</sub> is an amine protecting group, a P3- residue of an HCV protease inhibitor described herein, or a P4-P3- residue of an HCV protease inhibitor as described herein, and wherein the P3 and the P4-P3 residues are optionally protected with an amino-terminal capping group;

R<sub>20</sub> is a carboxy protecting group or a P1 residue of an HCV protease inhibitor described herein, wherein the P1 residue is optionally protected with a carboxy terminal protecting group or with W; R' is as defined in claim 1; and X is an appropriate leaving group.